

Human TCL1A Protein (His Tag)

Catalog Number: 13176-H07E



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

TCL1

Protein Construction:

A DNA sequence encoding the human TCL1A (P56279) (Ala 2-Asp 114) was expressed, with a polyhistidine tag at the N-terminus.

Source: Human

Expression Host: E. coli

QC Testing

Purity: > 88 % as determined by SDS-PAGE

Endotoxin:

Please contact us for more information.

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Met

Molecular Mass:

The recombinant human TCL1A consisting of 128 amino acids and has a calculated molecular mass of 15.2 kDa. It migrates as an 22 kDa band in SDS-PAGE under reducing conditions as predicted.

Formulation:

Lyophilized from sterile PBS, pH 7.5

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

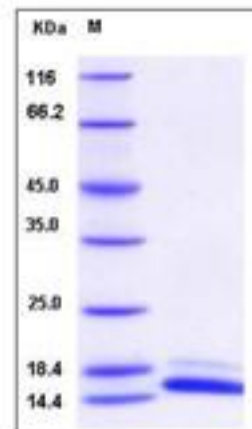
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

T-cell leukemia/lymphoma protein 1A (abbreviated for TCL1A) is a member of the TCL1 family. TCL1 protooncogene is expressed in CD3-CD4-CD8-precursor T cells and is extinguished at the CD4+CD8+ stage of thymocyte development. In B cells, TCL1 is first expressed in pro-B cells and remains high in naive mantle zone B cells of peripheral lymphoid tissues. The TCL1 protooncogene is overexpressed in many mature B cell lymphomas, especially from AIDS patients. It has been demonstrated that TCL1 is a powerful oncogene that, when overexpressed in both B and T cells, predominantly yields mature B cell lymphomas. All TCL1 isoforms bind to the Akt pleckstrin homology domain. Both in vitro and in vivo TCL1 increases Akt kinase activity and as a consequence enhances substrate phosphorylation. In vivo, TCL1 stabilizes the mitochondrial transmembrane potential and enhances cell proliferation and survival. It has been shown that TCL1 is a novel Akt kinase coactivator, which promotes Akt-induced cell survival and proliferation.

References

- 1.Jarmo Laine, *et al.* (2000) The Protooncogene TCL1 Is an Akt Kinase Coactivator. *Molecular Cell.* 6(2): 395-407.
- 2.Virgilio L, *et al.* (1994) Identification of the TCL1 gene involved in T-cell malignancies. *PNAS* December. 91(26): 12530-4.
- 3.Hoyer KK, *et al.* (2002) Dysregulated TCL1 promotes multiple classes of mature B cell lymphoma. *Proc Natl Acad Sci U S A.* 99(22): 14392-7.

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